

What is claimed is:

1. A method of isolating CD8⁺ cells which comprises the steps of

5 (a) contacting a sample of isolated peripheral mononuclear blood cells with a first antibody which specifically binds to the sequence AAEGLDTQRFS, or portion thereof, on CD8 molecules present on the surface of CD8⁺ cells but does not activate the CD8⁺ cells once bound thereto, under conditions permitting the formation of a first complex between the CD8⁺ cell and first antibody;

10 (b) separating from the sample any first antibody not present in the resulting first complex;

15 (c) contacting the sample with a second, immobilized antibody which specifically binds to the first antibody in the first complex, under conditions permitting the formation of an immobilized, second complex between the first complex and the second antibody, thereby immobilizing the CD8⁺ cells present in the sample;

20 (d) separating from the resulting immobilized second complex the cells present in the sample which were not immobilized in step (c);

25 (e) contacting the immobilized second complex under suitable conditions with an agent which causes the dissociation of the second complex into CD8⁺ cells and an immobilized third complex between the first antibody and second antibody; and

30 (f) separating the immobilized third complex from the CD8⁺ cells, thereby isolating the CD8⁺ cells.

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2. The method of claim 1, wherein the CD8⁺ cells are human CD8⁺ cells.

5 3. The method of claim 1, wherein the first antibody is a monoclonal antibody.

10 4. The method of claim 3, wherein the monoclonal antibody is produced by a hybridoma cell line selected from the group consisting of the cell line designated 37B1 (ATCC Accession No. HB-12441) and the cell line designated 8G6 (ATCC Accession No. HB-12657).

15 5. The method of claim 1, wherein the immobilized second antibody comprises an antibody operably affixed to a magnetic bead.

20 6. The method of claim 1, wherein the agent which causes the dissociation of immobilized third complex is the polypeptide designated CD8-3 and having the amino acid sequence AAEGLDTQRFSG.

25 7. A hybridoma cell line which produces a monoclonal antibody which specifically binds to CD8 molecules present on the surface of CD8⁺ cells but does not activate the CD8⁺ cells.

30 8. The hybridoma cell line of claim 7, wherein the hybridoma cell line is selected from the group consisting of the cell line designated 37B1 (ATCC Accession No. HB-12441) and the cell line designated 8G6 (ATCC Accession No. HB-12657).

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9. The monoclonal antibody produced by the hybridoma cell line of claim 13.

10. The monoclonal antibody produced by the hybridoma cell line of claim 8.

Sub. 11. A polypeptide useful for generating the monoclonal antibody of claim 9 which comprises the amino acid sequence AAEGLDTQRFSG.

Sub. a 3 10 12. The polypeptide of claim 11, wherein the polypeptide is the polypeptide designated CD8-3 and having the amino acid sequence AAEGLDTQRFSG.

15 13. A population of CD8⁺ cells isolated by the method of claim 1.

14. A kit for use in isolating CD8⁺ cells which comprises, in separate compartments,

20 (a) an antibody which specifically binds to the sequence AAEGLDTQRFSG, or portion thereof, on CD8 molecules present on the surface of CD8⁺ cells, but does not activate the CD8⁺ cells once bound thereto; and

25 (b) an agent which causes the dissociation of a CD8⁺ cell-antibody complex.

30 15. The kit of claim 14, wherein the agent which causes the dissociation of a CD8⁺ cell-antibody complex is the polypeptide having the sequence AAEGLDTQRFSG.

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